

CLAIMS

1. A gas burner for liquid fuel, especially vegetable oil, comprising an evaporator (7) for evaporating the liquid fuel, whose evaporation chamber (29) is limited by a boundary wall (9, 11) which has a gas discharge channel (17) for producing a gas jet (G), characterised in that the boundary wall of the evaporator (7) is at least constructed as double-walled with an inner wall (9) and an outer wall (11).
2. The gas burner according to claim 1, characterised in that the inner wall (9) and the outer wall (11) of the evaporator (7) consist of different materials.
3. The gas burner according to any one of claims 1 or 2, characterised in that the inner wall (9) of the evaporator (7) consists of a chemically inactive material, such as stainless steel.
4. The gas burner according to any one of claims 1 to 3, characterised in that the outer wall (9) of the evaporator (7) consists of a heat-conductive material, such as copper.
5. The gas burner according to any one of the preceding claims, characterised in that the gas discharge channel (17) has an opening edge (31) which tapers from the evaporation chamber (29).
6. The gas burner according to claim 5, characterised in that the tapering opening edge (31) of the gas discharge channel (17) is constructed as conical and preferably encloses a cone angle ( $\alpha$ ) between 50° and 70°.
7. The gas burner according to any one of claims 5 or 6, characterised in that the tapering opening edge (31) goes over into a constriction point (27) of the gas discharge channel (17).
8. The gas burner according to claim 7, characterised in that the constriction point (27) of the gas discharge channel (17) is constructed as hollow-cylindrical.

9. The gas burner according to any one of the preceding claims, characterised in that the gas discharge channel (17) has an outlet opening edge (33) which is constructed as conical and preferably encloses a cone angle ( $\beta$ ) which is at least greater than  $15^\circ$  to  $20^\circ$ .
10. The gas burner according to any one of the preceding claims, characterised in that the evaporator is constructed as an evaporator tube (7).
11. The gas burner according to any one of claims 7 to 10, characterised in that the constriction point (27) of the gas discharge channel (17) is constructed in the inner wall (9).
12. The gas burner according to any one of claims 7 to 11, characterised in that a gas jet opening (33) is constructed in the outer wall (11), whose flow cross-section is larger than the flow cross-section of the constriction point (27).